



Introduction of Biomass Accounting as an Evaluation Tool of Biomass Utilization Systems: a Case Study of Domestic Animal Waste Treatment-Oriented Biomass Town (Advanced Studies on Sustainable Animal Production: Interrelationships among Human, Animal and Environment, 8th International Symposium of Integrated Field Science)

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Traditionally, primary industry's biomass leftovers had been treated with the purpose of waste reduction. However, nowadays, efficient utilization of biomass resources is regarded as an important tool of rural economy revival, zero-emission society establishment, and reduction of greenhouse gas emissions. In Japan, the necessity of biomass utilization for sustainable society was declared in Biomass Nippon Strategy (2002). Based on this document, many rural towns and villages all around the country has adopted a "Biomass Town" concept and started to develop biomass utilization systems with multiple activities, including material, energy, and education biomass-related projects. However, no comprehensive evaluation of economic and environmental efficiency of already existing biomass utilization systems is conducted. One of the reasons is that there exist no guidelines, which could assist in such estimation process. In this paper, first, brief introduction on biomass accounting concept, suggested by authors in our previous works as an accounting tool to assist in decision-making related to biomass activities, is made. Next, the results of a case study on domestic animal waste treatment-oriented biomass town are presented. The biomass accounting form is applied in the case study to account for four compost facilities built and managed by local government. Finally, discussion on the possibility of economic and environmental efficiency improvement of the biomass activities under the case study is conducted.